REMARKS / DISCUSSION OF ISSUES

The present amendment is submitted in response to the Office Action mailed December 4, 2010. Claims 16-32 remain in this application. Claims 16 and 28 have been amended. In view of the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Response to Non-Compliant Amendment

Applicant has corrected the Listing of Claims to include cancelled claims 1-15, which were inadvertently omitted in the submission on July 15, 2010. Applicants believe that the present Amendment is now fully compliant.

Allowable Subject Matter

Applicant wishes to thank the Examiner for indicating that Claims 18, 22-25 and 30-32 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

I. Claim Rejections under 35 USC 103

A. Rejection of Claims 16-17, 21, 26 and 28-29

In the Office Action, Claim 16-17, 21, 26 and 28-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,071,635 ("Inoue") in view of U.S. Patent 7,319,444 ("Jo"). Applicants respectfully traverse the rejections.

In response, independent claims 16 and 28 are herewith amended to more particularly and precisely recite the novel and unobvious features of the instant invention. It is respectfully submitted that these claims, as well as the remaining claims depending therefrom, are clearly patentably distinguishable over the cited and applied references for the reasons detailed below.

Claims 16-17, 21, 26 and 28-29 are allowable

The cited portions of Jo fail to disclose or suggest "*compensation circuitry for modifying target pixel drive currents to take account of the voltage on the column power supply line at each of the plurality of pixels in the column resulting from the currents drawn from the column power supply line by the plurality of pixels in the column for each row addressing cycle in a field period and the dependency of pixel brightness characteristics on the voltage on a row conductor at the pixel and independent changes in the drain and source voltages of the drive transistor*", as recited in Claim 16 **[Emphasis Added]**.

Instead, the cited portions of Jo describe a pixel circuit to prevent degradation of quality of a displayed image by maintaining the flow of current at a constant value even when organic EL elements are degraded. Jo describes in the Abstract, a pixel circuit including a capacitor that accumulates, when a scanning line is selected, charge in accordance with current flowing through a data line; a TFT that allows, subsequent to the selection, current I_2 in accordance with the accumulated charge to flow between the source and drain of the TFT; an organic EL element whose anode is connected to the drain of the TFT; a TFT that detects a voltage applied to the organic EL element and allows current I_3 in accordance with the applied voltage to flow between the source and drain of the TFT; and a correction circuit that generates mirror current I_4 of the current I_3 and adds the current I_4 to the current I_2. The Office refers Applicants to Fig. 4 of Jo in association with col. 7, lines 56-62 and col. 8, line 3-33. The problem to be remedied in Jo is described at col. 7 and 8 which states in relevant part that when a light-emitting control signal Vgi becomes the H level, when the TFT 1106 is turned ON, **the voltage between the source and drain of the TFT 1102** is reduced below the value when the scan signal Yi becomes the H level and when the TFT 1104 is turned ON. Therefore, the current flowing through the organic EL element 1130 is insufficient compared to the target value, that is, the current I_{out}. Jo solves the problem through the use of a correction circuit 1110 to **compensate for the degradation of the organic EL element 1120**. According to Jo, the correction circuit 1110 connects the gate of the TFT 1112 to the drain of the TFT 1102 which increases the current I_3 flowing between the source and drain of the TFT 1112 when the voltage between the source and drain of the TFT 1102 is reduced due to degradation of the organic EL element 1130. More particularly, since the gate of the TFT 1112 is connected to the drain of the TFT 1102, the current I_3 flowing between the source and

drain of the TFT 1112 is increased when the voltage between the source and drain of the TFT 1102 is reduced due to degradation of the organic EL element 1130.

As described above, Jo is directed to correcting for degradation in the OLED which generally will cause the anode of the OLED to rise in time. This will cause a change in the drain-source voltage of the drive TFT. However, it should be understood that **the source voltage will remain at a constant level with respect to some reference voltage, e.g., ground**. In contrast to Jo, the present application is not directed to resolving OLED degradation. Instead, the present application addessess the issue of imperfect output impedance of the drive TFT and the finite resistance of the power supply line. According to the invention, **both the drain and the source voltages of the drive TFT can move independently with respect to ground**. The invention corrects for this independent movement of the source and drain voltages with respect to ground. Such independent movedment is not possible in Jo. Accordingly, claim 16 has been amended to recite this distinction. More particularly, claim 16 recites in relevant part, "*...compensation circuitry for modifying target pixel drive currents to take account of the voltage on the column power supply line at each of the plurality of pixels in the column resulting from the currents drawn from the column power supply line by the plurality of pixels in the column for each row addressing cycle in a field period and the dependency of pixel brightness characteristics on the voltage on a row conductor at the pixel and independent changes in the drain and source voltages of the drive transistor*".

Applicants respectfully refer the Examiner to Fig. 4 of Applicant's application which describes the independent movements of the drain and source voltages of the drive transistor, which are corrected for in the invention. Fig. 4 depicts a load line plot with an LED characteristic and a transistor characteristic. With the beginning of the transistor characteristic equal to the power supply voltage. The operating point on the load line can move due to loads found elsewhere on the resistive line. Therefore, independent movement of the source occurs with respect to ground, in the case of a P-type drive transistor. Also shown is a point where the transistor (TFT) characteristic crosses the LED characteristic, defining the drain voltage of the transistor. This can also move independently with respect to

ground. In constrast to the invention, when considering LED degradation, there is no movement in the source (for a P-type drive transistor). That is, the power supply remains constant, but there is movement in the source as the LED characteristic will distort.

Claims 17, 21 and 26 depend from independent Claim 16, which Applicants have shown to be allowable. Accordingly, claims 17, 21 and 26 are also allowable, at least by virtue of their dependency from claim 16.

Independent Claim 28 recites similar subject matter as Independent Claim 16 and therefore contains the limitations of Claim 16. Hence, for at least the same reasons given for Claims 16, Claim 28 is believed to recite statutory subject matter under 35 USC 103(a).

Claim 29 depends from independent Claim 28, which Applicants have shown to be allowable. Accordingly, claim 29 is also allowable, at least by virtue of its dependency from claim 28.

Rejection of Claims 19-20 under 103

The Office has rejected claims 19-20 under 35 U.S.C. §103(a) as being unpatentable over Inoue in view of U.S. Patent No. 6,091,203 ("Kawashima"). Applicants respectfully traverse the rejections.

Claims 19-20 are allowable

As explained above, the cited portions of Inoue do not disclose or suggest each and every element of claim 16 from which claims 19-20 depend. Kawashima does not disclose each of the elements of claim 16 that are not disclosed by Inoue. For example, the cited portions of Kawashima fail to disclose or suggest, " *compensation circuitry for modifying target pixel drive currents to take account of the voltage on the column power supply line at each of the plurality of pixels in the column resulting from the currents drawn from the column power supply line by the plurality of pixels in the column for each row addressing cycle in a field period and the dependency of pixel brightness characteristics on the voltage on a row conductor at the pixel and independent changes in the drain and source voltages of*

the drive transistor", as recited in Claim 16. Hence claim 16 is allowable and claims 19-20 are allowable, at least by virtue of their respective dependence from claim 16.

B. Rejection of Claim 27

The Office has rejected claim 27 under 35 U.S.C. §103(a) as being unpatentable over Inoue in view of U.S. Patent No. 7,164,417 ("Cok"). Applicants respectfully traverse the rejection.

Claim 27 is allowable

As explained above, the cited portions of Inoue do not disclose or suggest each and every element of claim 16 from which claim 27 depends. Cok does not disclose each of the elements of claim 16 that are not disclosed by Inoue. For example, the cited portions of Cok fail to disclose or suggest, " *compensation circuitry for modifying target pixel drive currents to take account of the voltage on the column power supply line at each of the plurality of pixels in the column resulting from the currents drawn from the column power supply line by the plurality of pixels in the column for each row addressing cycle in a field period and the dependency of pixel brightness characteristics on the voltage on a row conductor at the pixel and independent changes in the drain and source voltages of the drive transistor"*, as recited in Claim 16.

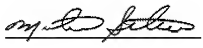
Thus, the cited portions of Inoue and Cok, individually or in combination, do not disclose or suggest, *"compensation circuitry for modifying target pixel drive currents corresponding to desired pixel brightness levels, to take account of the voltage on the column power supply line at each pixel resulting from the currents drawn from the column power supply line by the plurality of pixels in the column being supplied by the column power supply line for each row addressing cycle in a field period and the dependency of pixel brightness characteristics on a voltage on a row conductor at the pixel and changes in the drain-source voltage of the drive transistor"*, as recited in claim 16. Hence claim 16 is allowable and claim 27 is allowable, at least by virtue of its respective dependence from claim 16.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 16-32 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



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